

Patent Claims

What is claimed:

1. An active matrix organic electroluminescence display device,
5 comprising:
 - a thin film transistor, comprising:
 - a gate metal disposed on a substrate;
 - a dielectric insulation layer covering said gate metal and said
substrate;
 - 10 a source/drain metal disposed on said dielectric insulation layer and
above said gate metal; and
 - a passivation layer covering said source/drain metal and being a
multi-layer structure; and
 - an organic light emitting diode, comprising:
15
 - an anode electrode connected to said source/drain metal;
 - an organic emitting layer formed on said anode electrode; and
 - a cathode electrode formed on said organic emitting layer.
2. The active matrix organic electroluminescence display device of
20 Claim 1, wherein each layer of said multi-layer structure is made of
a different dielectric material.
3. An active matrix organic electroluminescence display device,
comprising:

a thin film transistor, comprising:

a gate metal disposed on a substrate;

a dielectric insulation layer covering said gate metal and said substrate;

5 a source/drain metal disposed on said dielectric insulation layer and above said gate metal; and

a passivation layer covering said source/drain metal, wherein the surface of said passivation layer is thermally oxidized; and

an organic light emitting diode, comprising:

10 an anode electrode connected to said source/drain metal;

an organic emitting layer formed on said anode electrode; and

a cathode electrode formed on said organic emitting layer.

4. The active matrix organic electroluminescence display device of
15 Claim 3, wherein said passivation layer is made of SiN_x and the surface thereof is thermally oxidized to form SiON.

5. An active matrix organic electroluminescence display device, comprising:

20 a thin film transistor, comprising:

a gate metal disposed on a substrate;

a dielectric insulation layer covering said gate metal and said substrate;

a source/drain metal disposed on said dielectric insulation layer and above said gate metal; and

a passivation layer covering said source/drain metal and composed by a high dielectric material; and

5 an organic light emitting diode, comprising:

an anode electrode connected to said source/drain metal;

an organic emitting layer formed on said anode electrode; and

a cathode electrode formed on said organic emitting layer.

10 6. The active matrix organic electroluminescence display device of Claim 5, wherein said passivation layer is made of SiO₂.